



IBM Enterprise Architecture Method enabled through Ptech FrameWork

Challenges Facing Organizations in the Development of Enterprise Architectures

The business environment of today and the future is, and will be, substantially impacted by the Web, client/server environments, disparate networking systems, enterprise distributed systems, open systems, and the new role of data centers. Many organizations are now looking to identify and develop a more focused Enterprise Architecture (EA) that will bring the most value to their business.

A true EA is a framework for both business and IT, that will guide investment and design decisions and specify processes, standards, interfaces and common services for the deployment and management of IT assets, in support of business objectives. The information represented in an EA is highly interlinked with the business goals and objectives driving IT guiding principles, which in turn, drive application, hardware and component selection, etc.

Yet, today's EA engagement deliverables are presented in a series of paper or, on occasion, electronic documents, with explanations of these interlinked relationships in footnotes, if documented at all. In most cases, however, these interrelationships are relegated to the collective memory of the EA project team and, thus, not available to the company's employees and beneficiaries of the EA. As the EA documentation ages, the explanations and benefits regarding the interlinked relationships deteriorate until the EA takes its place as a valued piece of shelfware. Thus, the long-term benefits of the IT investment many times go unrealized by the organization.

META Group Research – Demand for tools to support Enterprise Architecture

In a rapidly changing, technology-dependent business environment, complexity and uncertainty become natural by-products of an organization's culture, as they demand global, end-to-end infrastructure solutions that are future-ready. Recently conducted research by the META Group, indicates a rising demand among organizations for models and diagrams to increase both the quality and speed of decision making to combat the volatility of these surroundings.¹ The degree to which senior management can "see" the dependence of certain conditions (either to achieve business value or avoid suboptimal results) is predicated on the effectiveness to create the right portfolio of models.

¹ META Group – December 2000, Vol. 4, Number 9, Enterprise Architecture Strategies "The Business Value of Modeling: A Framework for Categorizing Modeling Tools"

To combat the increasing complexity of work faced by IT teams, organizations are employing tools and object-oriented models for business, information, architecture, infrastructure, analysis, design, testing, and coding venues.

"By 2001, 10 percent of Global 2000 organizations will reconstitute modeling as a core IT discipline, growing to 25 percent by 2002 and 40 percent by 2003. By 2002/2003, 75 percent of enterprise architecture teams will acquire a repository as a foundation investment for all enterprise IT activities. By the end of 2005, these teams will be key players (e.g. offering "corporate memory" in the form of models/repositories) in the business strategy for planning mergers, acquisitions, and divestitures."²

IBM and Ptech FrameWork

IBM and Ptech are teaming to effectively document and communicate a client's EA throughout their organization. IBM Global Services' Enterprise Architecture Method enabled by Ptech FrameWork™ is designed to enable IBM consultants to create and deliver EA engagement deliverables of high quality, in a short timeframe and with broad organizational visibility. Using FrameWork, the IBM and Ptech consultants along with the client team, quickly collect data and develop EA engagement deliverables that are designed to be comprehensive, self-documenting and able to display the complex relationships between IT and business goals and objectives in both textual and graphical format.

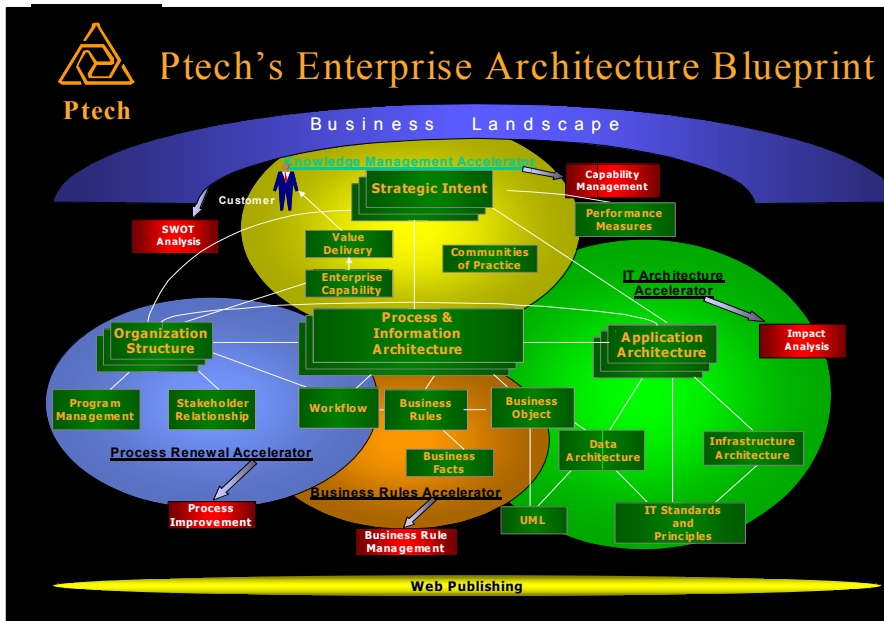
Ptech FrameWork

FrameWork is a powerful and customizable enterprise modeling environment and repository that enables both the visual and logical representation of knowledge in virtually any desired presentation format. It is a dynamically configurable tool for building models, evaluating queries, and reporting. With FrameWork, IBM can provide EA deliverables as a live, graphically enriched hypertext-linked Web site which can be placed on the client's intranet rather than as a paper-based set of shelfware.

KnowledgeEngine

At the heart of FrameWork is the powerful Ptech KnowledgeEngine. Based on a semantic network design, each element of information is defined by its characteristics and relationships to other objects. Every

² META Group – October 10, 2000, Enterprise Architecture Strategies "The Case for the Re-Emergence of Enterprise Modeling"



FrameWork is a full strategy-to-implementation environment that supports both business and technology users and fully integrates with both environments. FrameWork promotes the ability to trace models back to the strategies they support.

object, or node in the network, may “refer” to an infinite number of other information nodes. The KnowledgeEngine is a powerful inference tool that verifies the applicability of the rules as new objects are created. As new rules are added, it verifies that existing objects do not violate these rules. The power of the KnowledgeEngine to allows IBM consultants to quickly collect information from throughout their client’s organization and then build the Enterprise Architecture.

KnowledgeBase Repository

Ptech KnowledgeBase is an integrated, intelligent, and dynamic repository in FrameWork that is used to visually and logically store the information entered into a FrameWork model. For EA development, the KnowledgeBase contains diagrams, objects, relationships and the rules that control them. The KnowledgeBase Repository contains the IBM intellectual capital supporting the EA Method. This is one of the key features that enables IBM EA Consultants to rapidly develop a client’s comprehensive enterprise architecture.

The information objects in FrameWork have visual representation and, by using FrameWork’s graphic object-oriented tools, these objects can be instantiated, populated with their instance specific information and then linked. These links are retained in the KnowledgeBase and become the basis that FrameWork uses to dynamically generate a complete KnowledgeBase image in a variety of static output formats, including HTML, spreadsheets, and other types of documents. Users need only a standard browser to view the generated HTML web site output, which has fully linked objects, including graphical models, documentation, diagrams, strategic concepts, and plans.

This capability allows for a highly dynamic and iterative EA engagement environment.

IBM Method Accelerators

An Accelerator is an extension to the FrameWork basic KnowledgeBase which allows for the inclusion of additional material, metamodels, intellectual capital, templates, standard diagrams, new object classes, etc. into the basic FrameWork application.

IBM Method Accelerators are implemented in FrameWork to extend the basic tool to satisfy IBM’s specific method and intellectual capital requirements. FrameWork allows IBM consultants to offer rapidly developed and customized deliverables, based on templates of the IBM Enterprise Architecture Method, thus leveraging IBM intellectual capital and facilitating reuse. IBM and Ptech consultants using FrameWork can create models, design rules and constraints on-the-fly through Accelerators to define a modeling and graphical environment to match their clients’ enterprise environment.

Value Proposition to Organizations

With an Enterprise Architecture created using FrameWork, organizations can realize the following benefits:

- Dynamic repository with linkages from business strategy to architecture and application development
- Powerful analysis via “what if scenarios” that help uncover relationships, and understand the effect that the change of business goals has upon IT investments
- Better decision-making capabilities for IT initiatives, as the dependency of certain conditions (either to achieve business value or avoid suboptimal results) can be seen more easily
- Simple, standard means of storing architecture components and business processes that enable wider business-unit participation in IT-oriented initiatives
- IBM consulting services delivered at “e-speed”

IBM and Enterprise Architecture

*If you do not know where you are, a map will not help.
If you do not know where you are going, any road will do.*

IBM is a worldwide leader in Enterprise Architecture, both as a thought leader and as a provider of services to its clients. IBM is a Platinum Member and sponsor of The Open Group Architecture Framework (TOGAF), an international organization for open standards and integration. Businesses large and small, governments and governmental agencies around the globe have benefited from the Enterprise Architecture consulting provided by IBM using this well-established method.

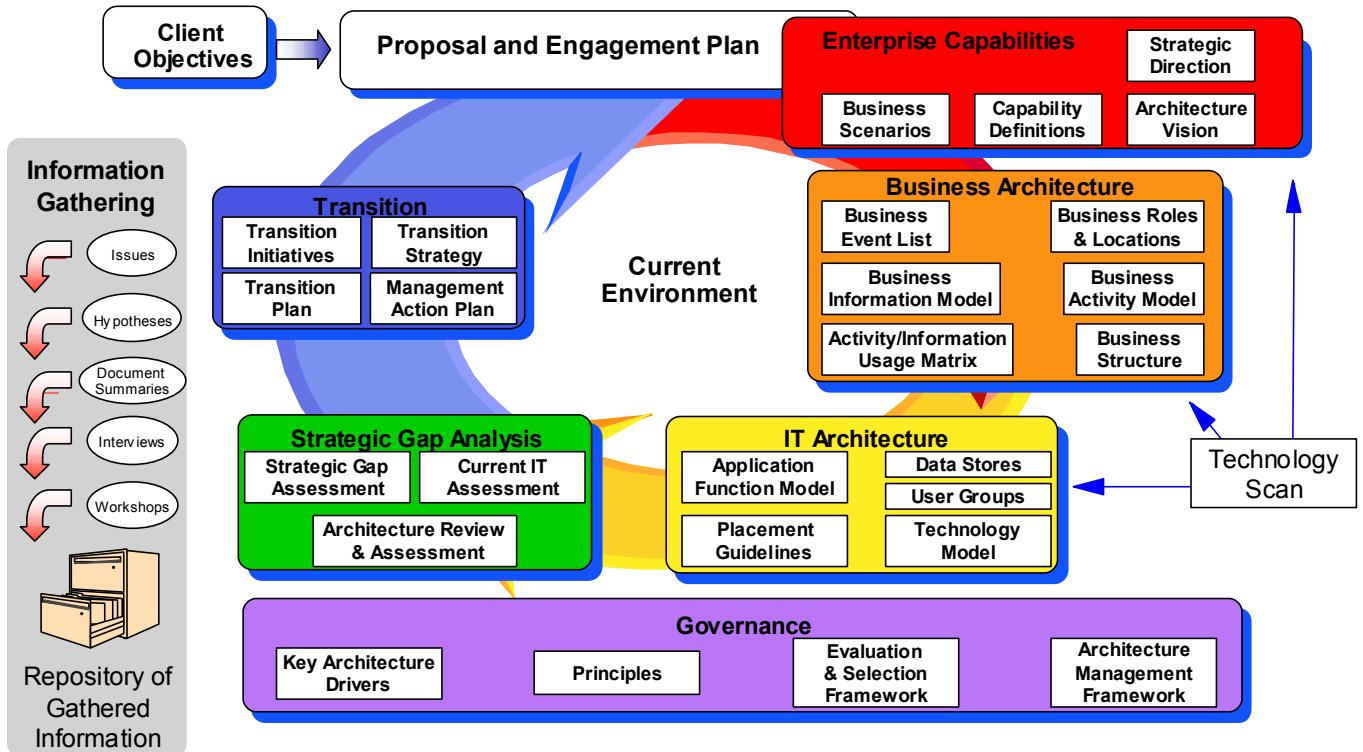
IBM consultants help clients to realize more value from their IT investments through a clearly defined Enterprise Architecture that uses rules, standards and structure to meet the needs of the enterprise. Using IBM's Enterprise Architecture method, IBM consultants develop client-specific enterprise architectures that, once deployed, are designed to enable an organization to align their IT infrastructure and processes with their business strategy. The resulting deliverable in FrameWork is the ongoing map that guides an organization in its quest to use information technology to drive business value, reduce costs and improve productivity.

IBM's Enterprise Architecture Method is a framework that is designed to provide the linkage among a Business Strategy, an IT Strategy and the implementation of IT solutions. The EA is driven by business strategic goals and contains principles, models, evaluation and selection

criteria, and the processes to verify that it continues to meet the needs of the business. At the end of a FrameWork-enabled EA engagement, clients are left with a dynamic deliverable that they are able to maintain as the architecture evolves to meet changing business and IT objectives.

IBM's Enterprise Architecture Method uses the Enterprise Architecture lifecycle depicted below. This lifecycle process:

- Assists with in-depth analysis of the client's current business and IT environment and the requirements to meet service levels
- Focuses on the technology, processes, tools, skills and organizational changes needed to bring IT in alignment with business strategies
- Creates the roadmap to go from the "as is" to the "to be" state –that guides investment, cost reduction and design decisions
- Specifies processes, standards, interfaces and common services for the deployment and management of IT assets, in support of business objectives and to promote continued value and return to the business
- Defines an environment for building future known systems as well as the solutions to unforeseen requirements



The IBM Enterprise Architecture Method Lifecycle

Some Background about Ptech Inc.

Ptech Inc. is a privately held solution provider headquartered in Quincy, MA and founded in 1994. As a total solutions company, Ptech builds comprehensive e-Enterprise Architectures that integrate business landscapes, strategies, value chains, processes, objects, rules, applications, knowledge, skills, and knowledge maps across an organization.

Ptech tools and services are presently used throughout the world by government agencies and companies in the insurance, health care, financial, transportation and telecommunications industries.

Ptech believes that the key to success in the 21st Century will be how rapidly and successfully organizations are able to respond to changes in the market and business environment. Ptech provides solutions to help their customers achieve success by creating a dynamic and semantic visual blueprint of their enterprise – a Knowledge Control Panel that affords them the ability to analyze and understand the impact of change on a client's organization.

Through a combination of consulting and cutting-edge technology, Ptech builds integrated business architectures that offer comprehensive enterprise awareness to executive decision makers. Ptech provides exceptional capabilities and in-depth experience in conducting corporate knowledge needs analysis and designing Knowledge Management Systems for both the public and private sectors.

Ptech's fully integrated product line offers comprehensive, scalable, concept-to-code solutions for strategic planning, business modeling, and software generation. Ptech enables organizations to optimize their IT and other knowledge investments by creating systems that truly enhance operations and business processes to be consistent with the organizational culture and business requirements and to directly implement their visions, goals and objectives.

IBM and Ptech, Inc. have entered into an alliance agreement. For more information about Ptech, Inc. and FrameWork, visit Ptech's website at www.ptechinc.com

Ptech Framework is a registered trademark of Ptech, Inc.

IBM

IBM Global Services (IGS) is among the world's largest and most versatile provider of information systems consulting, and systems integration services. With more than 148,000 professionals in 164 countries, we can be an invaluable asset as your business grows. And our extensive portfolio of services means businesses can rely on us to help them address new challenges as they arise.

Our people are passionately committed to help you produce positive, measurable business results, whatever the size of your company. We've done so for thousands of customers, one customer at a time. It's this personal attention to your unique challenges and requirements supported by a global team, which makes us unique.

With over 80 years of leadership in helping businesses, IBM is among the few companies that can provide end-to-end solutions with unmatched technical expertise, regardless of vendor or platform. The fact that we are one of the world's largest services provider is evidence of our ability to deliver results in today's ever-changing marketplace.

When you look for a solution provider, look to IBM. We're confident we can help you. We look forward to the opportunity.

For more information about IBM Global Services, visit our Web site at www.ibm.com/services/us.



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